

Amendments to the Specification

Please amend the Specification by replacing the corresponding paragraphs with the following new paragraphs. Changes from the existing specification are shown in redline/strikeout form. Paragraph references are to the published application at US2007/0199599.

[0042] The opening 84 is positioned to be in registry with the termination point ~~76~~78, and the opening 86 is positioned to be in registry with the termination point ~~78~~76. Openings 88, 90 are positioned preferably along a diameter of the disk 14 to be within the flare portion 56 of the inlet conduit 54. Slots 92, 94 extend along the diameter of the disk 14 from the respective openings 88, 90 at the bearing face 82. The bearing face 82 comprises a smaller irregular contact surface 96 that might be formed by removing material from the bearing surface along its peripheral edges. The smaller contact surface 96 helps to reduce torque. As is conventional in ceramic disk valves, the contact surface 96 must be polished flat.

[0043] Referring now to Figs. 1, 5, and 6, the rotating ceramic disk 16 has a generally circular shape from which extend keys 98. The rotating ceramic disk 16 has a larger diameter than the fixed ceramic disk 14 and includes a bearing face 100 on one side and an outlet face 102 on the other side. The bearing face 100 has a smaller diameter contact surface 103 that is polished flat and is of a size no smaller than the contact surface 96 of the fixed disk 14. The rotating ceramic disk 16 has four pass through openings and a blind slot in the contact surface 103. Two center openings 104, 106 are disposed on a diameter of the disk 16 and are spaced from each other to be in registry with the openings 88, 90 in a first position of the rotating disk 16 relative to the fixed disk 14. A spray opening 108 is positioned to be in registry with one of the slots 92, 94 in the fixed disk 14 in a second position of the rotating disk 16 relative to the fixed disk 14, when simultaneously, the two center openings 104, 106 will not be in registry with the openings 88, 90. An elongated filter opening 110 is positioned near the perimeter 111 of the contact surface ~~102-103~~ to be in registry with opening 86 in the fixed disk 14 in a third position of the rotating disk 16 relative to the fixed disk 14. An elongated blind slot 112 is sized and positioned within the contact surface 103 to place the opening 84 into fluid communication with the slot 92 (both

on the fixed disk 14) at the same time that the elongated filter opening 110 is in registry with the opening 86.

[0044] Looking now at Figs. 1, 7 and 8, the accessory mount 20 is a disk preferably formed of metal, such as brass, or a suitable polymer, such as Polyoxymethylene, and has an adhering surface 113 and an opposite outlet surface 114. The accessory mount 20 need not be formed of the same material as the housing 12, although for economic or aesthetic reasons, it may be preferable to do so. The adhering surface 113 is adapted to be fixed to the outlet face 102 of the rotating ceramic disk 16. Preferably the accessory mount 20 is adhered to the outlet face 102 using any suitable adhesive that will fix the adhering surface 112 to the outlet face 102 permanently, and within a maximum temperature range to be found in the application to which the valve 10 is to be used. An example is an epoxy.

[0053] In the first position, water enters the inlet conduit 54 from the faucet where it passes through the flare portion 56 and into the pass through openings 88, 90 of the fixed disk 14. Opening ~~90-88~~ is blocked by the contact surface of the rotating ceramic disk 14, but opening ~~88~~ 90 is in fluid communication with the elongated blind slot 112 by way of the slot ~~9294~~. Consequently, water flows through the blind slot 112 to the opening ~~8486~~, which is in registry with the termination point 76. Water continues to flow through channel 68 to conduit 66, then to the filter inlet 60 and to the filtration unit (not shown). Water exiting the filtration unit enters the valve 10 through the filter outlet 62, then into the depending conduit 72, through channel 74 and to the termination point 78. Here, water flows through the termination point 78 which is in registry with opening ~~8684~~, and which in turn by the position of the outlet assembly 26, is in registry with the elongated filter opening 110 of the rotating ceramic disk 16. Simultaneously, water passing through the elongated filter opening 110 enters the annular blind slot 122 of the accessory mount, there to exit the valve 10 through the filter outlet opening 128. Preferably, the flow of filtered water is laminated through the laminator 136.

[0054] Figs. 14 and 15 illustrate the relative positions of the components in the second position. In the second position, water enters the inlet conduit 54 from the faucet where it passes through the flare portion 56 and into the pass through openings 88, 90 of the fixed disk 14. Opening 88

90 is blocked by the contact surface of the rotating ceramic disk 14, but opening ~~90-88~~ is in fluid communication with the spray opening 108 by way of the slot ~~94~~92. Simultaneously, water is blocked from entry into the filter inlet 60 of the housing 12 and from entry into the center openings 104, 106 of the rotating disk 16. Water flows through the spray opening 108 and into the groove 118 in the accessory mount 20 where it exits in a spray through the spray openings 120.

[0055] Figs. 16 and 17 illustrate the relative positions of the components in the third position. In the third position, water enters the inlet conduit 54 from the faucet where it passes through the flare portion 56 and into the pass through openings 88, 90 of the fixed disk 14. Since the pass through openings 88, 90 are in registry with the two center openings 104 and 106, water passes through the rotating ceramic disk 16 and out through the center aperture 116 in the accessory mount 20, which is also in registry with the center openings 104 and 106. Preferably, this flow of unfiltered water is aerated through the aerator 132.

[0058] Looking now at Figs. 19 and 20, the sealing rings 162, 164, and 166 are disposed, respectively in grooves 168, 170, and 172 in the face 52' of the upper body portion 34'. The groove 168 is formed at the periphery of the flare portion 56; the groove 170 is formed at the periphery of the channel ~~68~~74; and the groove 172 is formed at the periphery of the channel ~~74~~66. Preferably, at least a portion of each groove 162, 164, and 166 is dovetailed (see Fig. 20) to provide additional space for the sealing rings to deform when they are compressed by the fixed disk 14' and by water pressure in the adjacent channel. For example, the groove along the sides of the channel might not be dovetailed but the groove at the ends of the channel may be dovetailed. In a preferred embodiment, the grooves 162, 164, and 166 are countersunk approximately .050 inches. Also, a notch 174 is formed in the upper body portion 34' to accommodate a tab (not shown) on the fixed disk 14' so that the fixed disk can be properly aligned relative to the housing 12' and fixed against rotation.